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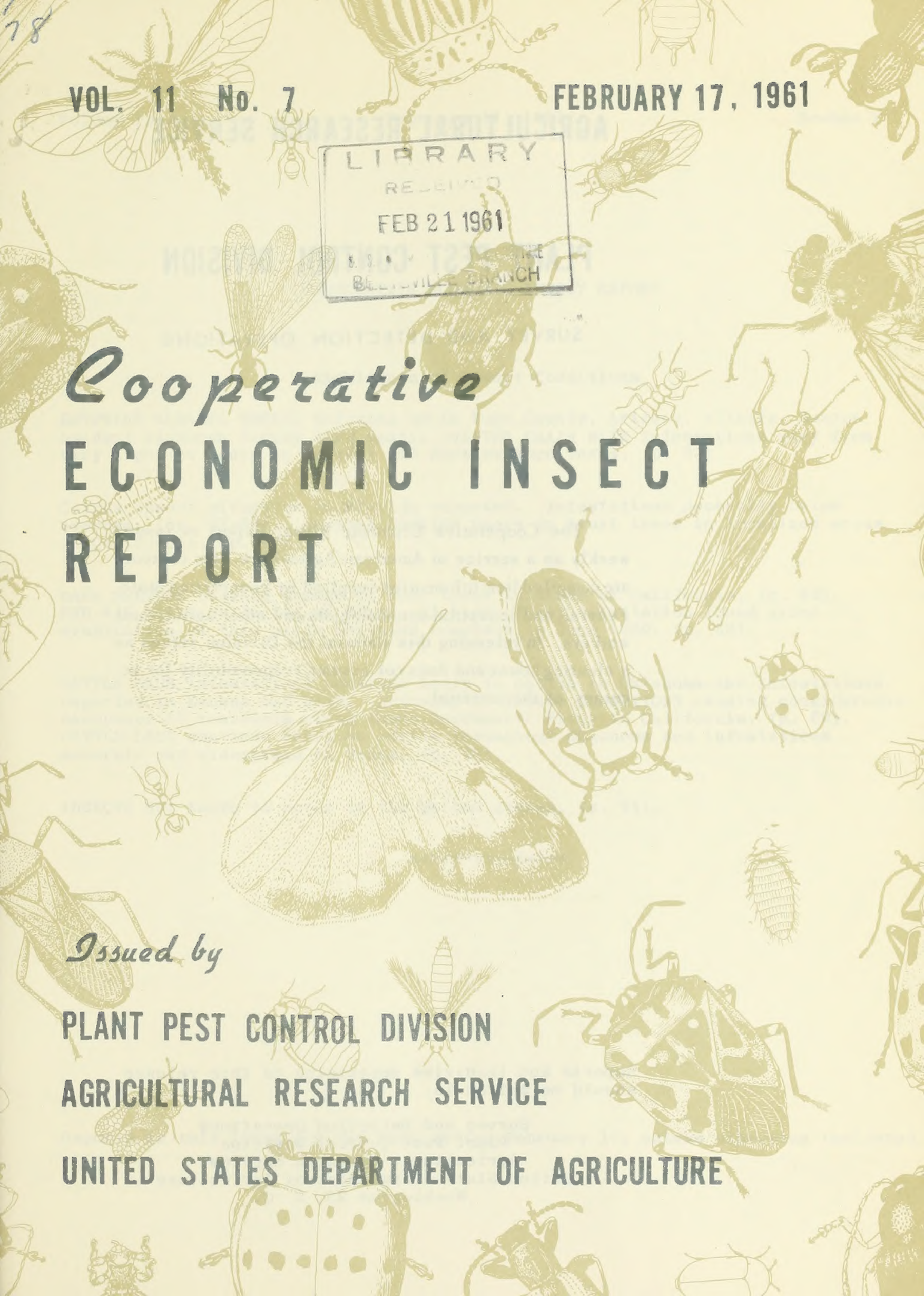

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Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION
AGRICULTURAL RESEARCH SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 11 February 17, 1961 Number 7

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

EGYPTIAN ALFALFA WEEVIL building up in Yuma County, Arizona, alfalfa; damage evident although larvae very small. WINTER GRAIN MITE infestations vary from very light to heavy in central and northeastern Texas. (p. 67).

Citrus insect situation in Florida reported. Infestations generally below average. (pp. 67-68). Several COCCIDS heavy on fruit trees in localized areas of California. (p. 68).

BARK BEETLES causing damage to host trees in areas of California. (p. 68). RED WAX SCALE collected at Miami, Florida; first infestation found since eradication of this scale believed complete in June 1960. (p. 69).

CATTLE GRUB infestations continue heavy in cattle in Oklahoma and infestations reported in Kansas and Utah. Activity of female MOSQUITOES causing considerable annoyance to residents along lower Sacramento River in California. (p. 69). CATTLE LICE continue heavy on cattle throughout Oklahoma and infestations moderate and widespread in Texas. (p. 70).

INSECTS not known to occur in the United States. (p. 71).

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Reports in this issue are for week ending February 10, unless otherwise indicated.

WEATHER OF THE WEEK ENDING FEBRUARY 13

Rising temperatures this week reduced the snow cover and ended, at least temporarily, the prolonged period of severe cold weather east of the Rocky Mountains. Maximum temperatures reached the 40's or 50's in the Canadian Border States and the 70's and 80's in the lower Great Plains. A high of 80° at Dodge City, Kansas, on the 12th was the highest there since October 10, 1960.

Temperatures this week averaged as much as 20° above normal in the northwestern Great Plains and from slightly to well above elsewhere,except about normal in the Appalachian region and 3° to 6° below normal in the south Atlantic and Gulf Coastal Plains. This week, relative to normal, was about 10° to 15° warmer than last week in the North Central Interior.

During the past month, frost penetration has been unusually deep in northern areas east of the Rocky Mountains. In Minnesota, the ground is frozen 30 to 50 inches deep in the southern half of the State and 50 to 70 inches in the northern half. Some sections of Wisconsin are plagued by bursting water pipes caused by the deep frost.

Precipitation was moderate to heavy in the northern half of California and the Pacific Northwest, with considerable flooding in western Oregon. A series of storm systems produced daily rains in this region that totaled from 1 to over 5 inches along the coast. During one storm winds up to 60 m.p.h., or higher, occurred along the Oregon and northern California coasts.

Precipitation also was moderate to heavy from eastern portions of the lower Great Plains eastward to the middle and south Atlantic coasts.This precipitation fell during the passage of a storm system that developed in the northwestern Gulf of Mexico on the 6th and moved northeastward, crossing the Middle Atlantic States on the 8th. Light to locally heavy snow fell in the lower Great Plains on the 7th and in the Ohio Valley on the 7th and 8th. Heavy snow fell in parts of the Virginias, Maryland, and in south-central Pennsylvania. Falls of 5 to 15 inches were common in these areas and local areas reported over 2 feet. Depths after the storm were 48 inches at Canaan Valley, West Virginia; 37 inches at Blairsville, Pennsylvania; and 21 inches at Chewsville, Maryland. In northern portions of Maryland and Virginia, several roofs collapsed under the weight of the snow. Heavy glaze also occurred during the storm in northwestern North Carolina, in many sections of Virginia, and in southern Maryland where power and communication lines were damaged.

At the present time there is no snow on the ground at lower elevations in the Far West, and between the Rocky Mountains and Appalachians a light cover is limited to northern portions of Michigan, Wisconsin, Minnesota, and eastern portions of the Dakotas. The cover is still heavy, however, from eastern West Virginia and western and northern Virginia northward over much of Pennsylvania, New York, New Jersey, and New England, with depths ranging up to 3 feet or more in mountainous sections and over 2 feet in central Massachusetts. (Summary supplied by U. S. Weather Bureau).

CEREAL AND FORAGE INSECTS

EGYPTIAN ALFALFA WEEVIL (*Hypera brunneipennis*) - ARIZONA - Buildup occurring in Yuma County alfalfa. On the Yuma-mesa,almost 100 percent of alfalfa terminals infested in many fields, with 3-8 larvae per terminal. Buildup relatively new and most larvae are very small; however, damage already evident. Infestations lower in Yuma and Gila Valleys, with an average of 10-20 percent of terminals infested with 1-3 larvae per terminal. Infestations, both in the valleys and on the mesa earlier and heavier than normal. (Ariz. Coop. Sur.).

CLOVER MITE (*Bryobia praetiosa*) - ARIZONA - Light to medium infestations present on Yuma-mesa alfalfa in Yuma County. (Ariz. Coop. Sur.).

SPOTTED ALFALFA APHID (*Therioaphis maculata*) and PEA APHID (*Macrosiphum pisi*) - NEW MEXICO - Generally light, with an occasional heavy infestation in alfalfa in Dona Ana, Sierra, Chaves and Eddy Counties. (N. M. Coop. Rpt., Feb. 4).

A THRIPS (*Frankliniella occidentalis*) - ARIZONA - Heavy populations present in terminal growth of central and southwest area alfalfa. (Ariz. Coop. Sur.).

WINTER GRAIN MITE (*Penthaleus major*) - TEXAS - Infestations ranged from very light to heavy in central and northeast areas. Greatest populations apparently in Ellis, Collin, Hunt and Kaufman Counties. (Davis, Newton).

CORN LEAF APHID (*Rhopalosiphum maidis*) - ARIZONA - Infestations light in barley statewide. (Ariz. Coop. Sur.).

GREENBUG (*Toxoptera graminum*) - TEXAS - Infestations in fields checked still light in most areas. One moderately heavy infestation in oats reported from Brazos County. (Davis, Newton).

A LEAFHOPPER (*Carneocephala* sp.) - NORTH CAROLINA - General and heavy around Chadbourn in Columbus County, having destroyed several plantings of oats and seriously damaged others. Limited observations indicate oats followed with oats caused more severe infestations. (Read, Young).

A CRANE FLY (*Tipula* sp.) - CALIFORNIA - Heavy populations severely damaging 160-acre planting of oats in North Highlands area, Sacramento County. (Cal. Coop. Rpt.).

WESTERN SPOTTED CUCUMBER BEETLE (*Diabrotica undecimpunctata undecimpunctata*) - OREGON - Unusually mild January weather permitted adults to become active. Observed feeding on winter cereals in Benton County, January 19. (Dickason).

SLUGS - OREGON - Active and damaging fields of grain in Marion County. Species primarily *Deroceras reticulatum*. (Capizzi).

FRUIT INSECTS

Citrus Insect Situation in Florida - End of January - CITRUS RUST MITE (*Phyllocoptruta oleivora*) infested 62 percent of groves (norm 68 percent); 40 percent economic (norm 42 percent). Situation is near normal for time of year and downward trend will continue erratically, with few districts showing increases. Highest districts are Bartow, Ridge, Brooksville, west coast and upper east coast. CITRUS RED MITE (*Panonychus citri*) infested 39 percent of groves (norm 61 percent); 14 percent economic (norm 31 percent). Statewide infestations lowest in 10 years of record for time of year. A gradual upward trend expected after mid-February. No districts presently in high range. TEXAS CITRUS MITE (*Eutetranychus banksi*) infested 21 percent of groves; 5 percent economic. Infestations expected to remain low in all districts. SIX-SPOTTED MITE (*Eotetranychus sexmaculatus*) infested 4 percent of groves; none economic. This is below average. FLORIDA RED SCALE (*Chrysomphalus aonidum*) infested 68 percent of groves (norm 50 percent);

9 percent economic (norm 8 percent). Statewide population near normal for time of year. Downward trend will continue through February. Highest districts are Bartow, Indian River and Ridge. PURPLE SCALE (Lepidosaphes beckii) infested 77 percent of groves; 6 percent economic. Infestations light in all districts and very few expected to become injurious. (Simanton, Thompson, Johnson (Citrus Exp. Sta., Lake Alfred)).

COCCIDS - CALIFORNIA - Epidiaspis piricola heavy on almond trees in Alameda, Alameda County; Aonidiella aurantii medium on dooryard citrus in Alameda, Alameda County, and heavy on citrus in Woodland, Yolo County; and Parlatoria oleae heavy on plum in Santa Paula, Ventura County. (Cal. Coop. Rpt.). ARKANSAS - Aspidiotus uvae heavy on grapes in Franklin County. (Barnes).

TRUCK CROP INSECTS

CABBAGE APHID (Brevicoryne brassicae) - ARIZONA - Heavy populations present on some Maricopa County cole crops. (Ariz. Coop. Sur.). GEORGIA - Light infestations on cabbage in Lowndes, Colquitt and Brooks Counties. (Johnson).

GREEN PEACH APHID (Myzus persicae) - ARIZONA - Light to medium populations present on some Maricopa County sugar beets. Only a few individuals found on lettuce in central and southwest areas. (Ariz. Coop. Sur.).

TOBACCO INSECTS

VEGETABLE WEEVIL (Listroderes costirostris obliquus) - GEORGIA - Light infestation on tobacco in the plant bed in Irwin, Tift, Berrien, Lowndes, Brooks and Colquitt Counties. (Johnson).

COTTON INSECTS

Debris Inspection in Live Oak County, Texas - Out of 275 bolls collected from 9 fields, 8 live BOLL WEEVIL (Anthonomus grandis) adults recovered. Forty-four bolls out of 275 found infested with 110 live PINK BOLLWORM (Pectinophora gossypiella) larvae. (Texas Coop. Rpt.).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana) - OREGON - Only known infestation in the State eradicated by burning of all infested and adjacent host material. Although only a small number of pines on nursery property at Portland found infested, a total of 2,498 pines representing several species destroyed. (Capizzi).

BARK BEETLES - CALIFORNIA - Ground observations indicate several new fades showing in January, while areas where severe damage occurred in 1960 now decreasing in the Consumnes River-Omo areas of El Dorado County. Dendroctonus brevicomis and Ips sp. responsible for damage. (J. McClelland, E. Berger). Ips confusus killing groups of 30-40 knobcone pine 20-55 years old in the Hennigar Flat plantation, San Bernardino County. Control by spray treatment being applied to this high value recreational area. Apparently due to the thin bark of knobcone pine, I. confusus working the entire tree down to the base. (R. M. Van Wagner).

FLATHEADED FIR BORER (*Melanophila drummondi*) - CALIFORNIA - Severely damaging regeneration white fir Christmas tree stock in a 20-acre planting. Topped trees being damaged in groups up to 50 in the Butterfly Valley, Plumas County. (C. L. Wagner).

AN OLETHREUTID (*Laspeyresia cupressana*) - CALIFORNIA - Medium infestation on arborvitae in Daly City, San Mateo County. (Cal. Coop. Rpt.).

RED WAX SCALE (*Ceroplastes rubens*) - FLORIDA - Collected on a leaf of a tropical breadfruit (*Artocarpus polyphemus*) at Miami, Dade County, on February 8 by H. A. Denmark. A single specimen was found in a greenhouse plant collection. This scale was collected for the first time in the State in 1955. A survey following the 1955 collection turned up infestations in 3 additional localities. In June 1960, the scale was considered eradicated from the last known nursery infestation in Florida. The last collection in the State was made by G. C. Butler, Jr. in January 1958 from *Anthurium* plants introduced from Honolulu, Hawaii. (Fla. Coop. Sur.).

COCCIDS - CALIFORNIA - *Mycetococcus ehrhorni* heavy on California live oak in Alameda, Alameda County; *Phoenicococcus marlatti* light on flower stalk of date palm in Needles, San Bernardino County; and *Lecanium cerasorum* heavy on pyracantha in Marysville, Yuba County. (Cal. Coop. Rpt.).

APHIDS - OKLAHOMA - Light numbers of several species noted on Easter lily, hibiscus and snapdragon in some greenhouses in east central area. (Okla. Coop. Sur.). NEW MEXICO - Heavy infestation of unspecified species damaging carnations in greenhouse at Las Vegas, San Miguel County. (N. M. Coop. Rpt., Feb. 4). CALIFORNIA - *Essigella californica* heavy on pine trees in Banning,Riverside County; and *Thoracaphis umbellulariae* adults heavy on California laurel. This is first report of latter species from Monterey County in the Salmon Creek area. (Cal. Coop. Rpt.).

A LEAF BEETLE (*Rhabdopterus bowditchi*) - FLORIDA - Collected on lychee at Miami, Dade County, on January 28 by C. F. Dowling, Jr. This species is known only from subtropical Florida. (R. E. Woodruff).

A SPIDER MITE (*Eotetranychus lewisi*) - OREGON - Found infesting greenhouse cuttings of poinsettias in Portland area. Det. by E. W. Baker. (Larson).

SLUGS - TEXAS - Light, local infestations attacking flower beds in southern Bee County. (Texas Coop. Rpt.).

INSECTS AFFECTING MAN AND ANIMALS

COMMON CATTLE GRUB (*Hypoderma lineatum*) - ARKANSAS - Average grub counts per head in untreated cattle were 4.4 in Jackson County, northeast area; 6.03 in Crawford County and 4.0 in Franklin County, northwest area. Average grub counts per head in treated cattle were 0.18 in Crawford County. (Lancaster, Watson, Sinco). OKLAHOMA - Heavy infestations continued common in cattle throughout State. (Okla. Coop. Sur.).

CATTLE GRUBS - UTAH - Unspecified species appeared in backs of cattle in Weber and Davis Counties. (Knowlton).

MOSQUITOES - CALIFORNIA - Heavy rains apparently activated hibernating females which have been causing considerable annoyance to residents along the lower Sacramento River. Particularly noticeable in Sacramento area, Sacramento County, the past two weeks. (Cal. Coop. Rpt.).

CATTLE LICE - OKLAHOMA - Several species averaged 4 per part on 90 yearling steers and 2 per part on 40 2-year-old steers checked in Payne County. Heavy infestations continued common on cattle throughout State. (Okla. Coop. Sur.). TEXAS - Moderate, widespread infestations of unspecified species over much of State. (Texas Coop. Rpt.). UTAH - Unspecified species controlled on a few hundred cattle in Weber County by spraying; 60 percent of the cattle there use rubbing devices. (Knowlton, Boyer).

HOG LOUSE (Haematopinus suis) - OKLAHOMA - Heavy infestations common on untreated hogs checked in southern half of State. (Okla. Coop. Sur.).

BROWN DOG TICK (Rhipicephalus sanguineus) - OKLAHOMA - Causing some concern in several homes, where pets were allowed inside, throughout central and north central areas. (Okla. Coop. Sur.). TEXAS - Infestations in lawns, on pets and in homes continue to be moderate to heavy and causing great concern among residents in Bryan-College Station area. (Newton).

STORED-PRODUCT INSECTS

RED FLOUR BEETLE (Tribolium castaneum) - ARIZONA - Heavy populations present in areas of grain storage, statewide. (Ariz. Coop. Sur.).

MEDITERRANEAN FLOUR MOTH (Anagasta kuhniella) - CALIFORNIA - Medium population of larvae in cracks of hay barn in Fleischaker Zoo, San Francisco, San Francisco County. (Cal. Coop. Rpt.).

MISCELLANEOUS INSECTS

AN EARWIG (Labidura riparia) - CALIFORNIA - Medium infestation of nymphs in soil under trees in a yard in Chino, San Bernardino County. (Cal. Coop. Rpt.). TEXAS - Earwigs, probably L. riparia, very numerous and causing considerable concern in Beaumont and Port Arthur areas. (Newton).

ELM LEAF BEETLE (Galerucella xanthomelaena) - OKLAHOMA - Adults becoming active in hibernation quarters in some homes in Perry, north central area. (Okla. Coop. Sur.).

OLD-HOUSE BORER (Hylotrupes bajulus) - MARYLAND - Damage to structural wood noted in homes at Baltimore and College Park. (U. Md., Ent. Dept.).

A LYCTID (Lyctus sp.) - TEXAS - Several adults taken from a bamboo basket at Laredo. (Deer).

BOXELDER APHID (Periphyllus negundinis) - UTAH - Numerous females found on top of fresh snow in Blacksmith Fork Canyon, Cache County, on December 22, 1960. (Knowlton, Smith).

IMPORTED FIRE ANT (Solenopsis saevissima richteri) - FLORIDA - Surveys during January in Alachua, Manatee, Marion, Putnam and Sarasota Counties negative. Surveys in outer perimeters of previously infested and treated areas in Clay and Duval Counties also negative. (Fla. Coop. Sur.).

CLOVER MITE (Bryobia praetiosa) - OKLAHOMA - Causing annoyance in some homes in central area. (Okla. Coop. Sur.).

COCKROACHES - NEW MEXICO - A problem in homes in Albuquerque area, Bernalillo County. (N. M. Coop. Rpt., Feb. 4).

A MAGGOT (Chrysomyza demandata) - OKLAHOMA - Heavy infestations noted in silage stored in several trench silos checked in Jackson County. (Okla. Coop. Sur.).

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

PERUVIAN COTTON STAINER (Dysdercus peruvianus Guerin)

Economic Importance: This pyrrhocorid is considered to be the most serious pest of cotton in Peru. During the 1957-58 season, the total losses attributed to this pest were estimated at about 10 million dollars. During the bug's migratory period, as much as 30 percent of the bolls in the most advanced fields may be lost and up to 70 percent of the fiber may fail to develop, the latter being attributed to fungus organisms of the genera Alternaria and Acremonium which are mechanically introduced into the interior of the bolls through the feeding punctures. Populations as low as 10 adult bugs per 100 cotton hills can cause economic damage if allowed to persist in a given area. During the migration period, counts of less than 50 per 100 hills should be maintained if severe crop losses are to be avoided. In addition to the losses in yield, the crop may sustain further losses in grade of fiber and quality of seed. The quality of the seed is reduced by insect feeding and the gregarious nymphs are often crushed in the picking operation, staining the fiber with their bright red bodies.

Distribution: Peru, Colombia, Venezuela, Brazil.

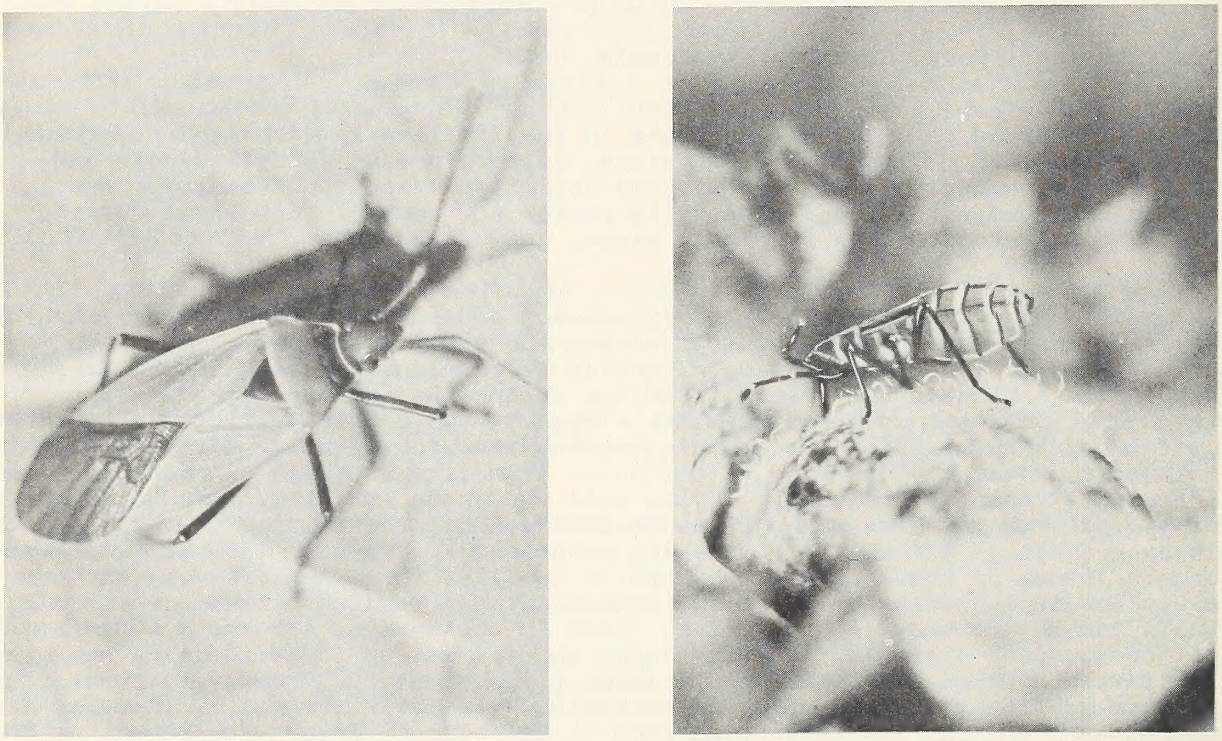
Hosts: Recorded on a number of plants in the families Malvaceae, Bombacaceae, Cochlospermaceae, Solanaceae, Compositae, Euphorbiaceae, Amaryllidaceae and Rosaceae. However, wild and cultivated varieties of cotton (Gossypium spp.) are the most important, and apparently preferred, hosts. Incidental feeding has also been recorded on eggplant, mango, guava and orange.

Life History and Habits: The biology as recorded in Peru is as follows: Breeding takes place in the Andean foothills during the early spring when mist-like rains promote the growth of vegetation. Feeding takes place on newly formed fruits of wild Malvaceae and other hosts. Sometime during the summer, depending upon weather conditions, movement down the slopes to the coastal valleys takes place. Cotton bolls and seed provide nutrients essential for maximum reproduction. Mating is frequently observed in cotton at this time. Groups of about 50 eggs are usually laid superficially in the soil under the leaf litter and near the base of the plant. Hatching takes place in 5-7 days and the first two instars tend to congregate in the nest area, making occasional forages up the stalk to feed on the juices of green leaves. Nymphs in the last three instars disperse over a number of plants in the immediate area and begin feeding on succulent small bolls and mature seed in open bolls. Late in the season, several hundred nymphs may be found on a single plant and large numbers may be found swarming over the irrigation ditches. The final molt takes place about 30-40 days after hatching. Adult migration then takes place from field to field in the valley. Adults feed on the moist content and developing seed in the bolls. Injury depends largely on the number of punctures, stage of maturity of the plant and the age of the boll at the time of injury.

(Pyrrhocoridae, Hemiptera)

No. 133 of Series

Description: EGG - Almost round; creamy white at first, changing to bright orange before hatching. NYMPHS - Bright red, with black and white markings. ADULTS - Female 4 mm. wide and 14 mm. long; male somewhat smaller. Color varies from bright red to reddish-yellow. Pronotum with apical third black and with anterior border narrowly margined with white. Scutellum and legs either light or dark. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies and Richard W. Bagley, Development Entomologist, Agricultural Chemicals Division, Union Carbide Chemicals Company). CEIR 11 (7):2-17-61.



Adult and Nymph of Dysdercus peruvianus Guerin

Major reference: Wille, J. E., 1952. Entomologia Agricola del Peru. Min. Agr. (La Imprenta Americana). pp. 20-34. Photographs courtesy of R. W. Bagley.

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